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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/099,962	03/19/2002	Yusho Nakamoto	112329	5499

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EXAMINER
TATE, CHRISTOPHER ROBIN

ART UNIT	PAPER NUMBER
1654	13

DATE MAILED: 08/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
10/099,962	Nakamoto et al.
Examiner	**Art Unit**
Christopher Tate	1654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Jul 3, 2003*.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above, claim(s) *6-13* is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-5* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ [illegible]pproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☒ Acknowledgement is made of a claim for foreign priority under

a) ☒ All b) ☐ Some* c) ☐ None of:

1. ☒ Certified copies of the priority documents have been receiv
2. ☐ Certified copies of the priority documents have been receive
3. ☐ Copies of the certified copies of the priority documents have [illegible]eceived in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

File copy

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). *5 & 8*
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Applicants' election with traverse of Group 1, claims 1-5, in Paper No. 12 is acknowledged. The traversal is on the ground(s) that the subject matter of all the instant claims is sufficiently related and thus a search and examination could be made without serious burden. This is not found persuasive for the reasons set forth in the previous Office action. It is reemphasized that the search for each of the inventive Groups is not co-extensive particularly with regard to the literature search. Further, a reference which would anticipate the invention of one group would not necessarily anticipate or even make obvious another group. Finally, the consideration for patentability is different in each case. Thus, it would be an undue burden to examine all of the inventive Groups in one application. In addition, Applicants' election with traverse of the species pine is acknowledged. Applicants' state that the election of species requirement within a particular claim is erroneous. However, the election of species requirement set forth in the previous Office action is proper as each of the variously recited plants represent mutually exclusive genera and species of plants which are different and distinct, each from the other.

The restriction and election of species requirements are still deemed proper and are therefore made FINAL.

Claims 1-5 are presented for examination on the merits.

Claim Rejections - 35 U.S.C. § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is rendered vague and indefinite because it is drawn to a method of extracting tannin from a plant source (e.g., the elected plant species: pine) however, as drafted, there are no actual positively claimed extraction steps recited in claim 1. Accordingly, claim 1 is unclear and incomplete because it is missing one or more essential steps (including the omission of a final recovery step of the desired tannin product) which actually result in the extraction of tannin therefrom (see, e.g., MPEP 2172.01).

Claim 5 is rendered vague and indefinite by the linking term "preferably" (line 2). A broad range or limitation followed by linking terms (for example, preferably, maybe, for instance, especially) and a narrow range or limitation within the broad range or limitation is considered indefinite since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired (see MPEP 2173.05(c) for additional information). In addition, the phrase "an extraction temperature is ..." (claim 5, lines 1-2) is unclear and ambiguous because this phrase does not define whether this temperature is actually used within the method.

All other claims depend directly or indirectly from rejected claims and are, therefore, also rejected under U.S.C. 112, second paragraph for the reasons set forth above.

Please note that the claims have only been examined over the art below insofar as they read upon the elected species (pine).

Claim Rejections - 35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Cone et al. (Southern Pulp and Paper Manuf., 1956), by Tiarks et al. (Basic Life Sci., 1992), by Matthews et al. (Phytochem., 1997), by Burmester et al. (Holz als Rho-und Werkstoff, 19886 - CABA Abstract), or by Soto et al. (Abstract from Brazilian Symposium - 6th Proceedings, 1999: IDS reference).

Although very difficult to interpret (as drafted) due to the U.S.C. 112 rejections above, a method of extracting tannin from pine using a lower alcohol or a lower alcohol/aqueous solvent is apparently claimed.

Each of the cited references teach the extraction of tannin from pine (with regard to the teachings of Soto et al., the pine polyflavonoids/pine proanthocyanidins are well accepted in the art as being synonymous with pine tannin) using a lower alcohol and/or a lower alcohol/aqueous solvent (see entire enclosed documents). Please note that, if not expressly taught, each of the reference solvent extraction temperatures would inherently be within the broad range instantly claimed as it would be extremely unusual within the plant tannin extraction art to use such extraction solvents outside the broad temperature range instantly claimed.

Therefore, each of the cited references is deemed to anticipate the claimed invention.

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cone et al. (Southern Pulp and Paper Manuf., 1956), Tiarks et al. (Basic Life Sci., 1992), Matthews et al. (Phytochem., 1997), Burmester et al. (Holz als Rho-und Werkstoff, 19886 - CABA Abstract), and Soto et al. (Abstract from Brazilian Symposium - 6th Proceedings, 1999: IDS reference).

The references are relied upon for the reasons discussed *supra*.

If not expressly taught by one or more of the cited references, based upon the beneficial teachings provided by the references as a whole with respect to the use of a lower alcohol and/or a lower alcohol/aqueous solvent to extract tannin from pine, it would have clearly been obvious to one of ordinary skill in the art at the time the claimed invention to adjust this particular conventional working condition - i.e., the result-effective adjustment in the amount and/or ratio of lower alcohol to water (as well as adjusting other conventional working conditions - e.g., determining an appropriate temperature for such tannin extraction within the broad temperature range instantly claimed) is deemed merely a matter of judicious selection and routine optimization which is well within the purview of the skilled artisan (especially since it is notoriously well recognized in the art, as evidenced by one or more of the cited references, that lower alcohols and/or water are effective for extracting tannin from pine).

Thus, the invention as a whole is *prima facie* obvious over the references, especially in the absence of evidence to the contrary.

Conclusion

No claim is allowed.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Tate whose telephone number is (703) 305-7114. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brenda Brumback, can be reached at (703) 306-3220. The Group receptionist may be reached at (703) 308-0196. The fax number for art unit 1654 is (703) 872-9306.

Christopher R. Tate
Primary Examiner, Group 1654